

Appln. No. 10/707,422
Docket No. 139805/GEM-0091

REMARKS / ARGUMENTS

Applicant appreciates the courtesy extended by the Examiner during a recent teleconference regarding the above-noted case. This response has taken into consideration discussion items from that teleconference.

Applicant also appreciates the Examiners reconsideration and withdrawal of the previous claim objections, and the previous claim rejections under 35 U.S.C. §112, second paragraph.

A request for a one-month extension of time under 37 CFR 1.136(a), from 3 October 2006 to 3 November 2006, is provided herewith, with fees chargeable to the Deposit Account noted below.

Status of Claims

Claims 1-32 are pending in the application and stand rejected. Applicant has canceled Claims 3, 4, 14, 15, 22, 23, 29 and 32, and has amended Claims 1, 12, 20 and 27, leaving Claims 1, 2, 5-13, 16-21, 24-28, 30 and 31 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. §102(e), and 35 U.S.C. §103(a), have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

These amendments and accompanying remarks were not presented earlier because Applicant did not fully appreciate the nature of the Examiner's position until the Applicant was advised in more detail of the position by the final rejection. The claim amendments presented herein, which Applicant respectfully requests entry thereof, should require only a cursory review by the Examiner as they include only elements presented in earlier examined claims.

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Rejections Under 35 U.S.C. §102(e)

Claims 1-3 and 12-15 stand rejected under 35 U.S.C. §102(e) as being anticipated by Weinberg. (U.S. Patent No. 6,628,984, hereinafter Weinberg).

Claims 27-29 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Popescu (U.S. Patent No. 6,652,143).

Applicant traverses these rejections for the following reasons.

Applicant respectfully submits that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, *in a single prior art reference.*" *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). Moreover, "[t]he identical invention must be shown in as complete detail as is contained in the *** claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Furthermore, the single source must disclose all of the claimed elements "arranged as in the claim." *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

Regarding Independent Claim 1 And Claims Dependent Therefrom

Applicant has canceled Claims 3, 4 and 32, and has amended Claim 1 to now incorporate the limitations of Claims 3, 4 and 32.

In view of Weinberg not being applied against Claims 4 and 32 for reasons relating to anticipation, Applicant submits that this rejection under 35 U.S.C. §102(e) to Claims 1-3 have been traversed.

Regarding Independent Claim 12 And Claims Dependent Therefrom

Applicant has canceled Claims 14 and 15, and has amended Claim 12 to now incorporate the limitations of Claims 14 and 15.

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Dependent claims inherit all of the limitations of the parent claim.

In alleging anticipation, the Examiner alleges that Weinberg discloses each and every element of the claimed invention arranged as claimed, but does not state with specificity where Weinberg discloses: “wherein the means for calculating includes *at least two detector elements arranged next to each other and the opening is sized so that the x-ray beam strikes more than one of the at least two detector elements, but only a portion of each, the portion being less than 100% of a sensitive area of an associated detector element ...*”.

Here, Applicant claims a structural arrangement where the at least two detector elements and the opening are sized and positioned such that when an x-ray beam is present, the x-ray beam strikes more than one of the at least two detector elements, *but only a portion of each, the portion being less than 100% of a sensitive area of an associated detector element*, as illustrated in Figures 3 and 4.

In claiming that the at least two detector elements and opening are sized and positioned such that the x-ray beam strikes more than one of the at least two detector elements, *but only a portion (less than 100%) of each*, Applicant is claiming that the detector elements and opening are sized and positioned such that the x-ray beam strikes *only a portion (less than 100%) of each detector element, not all of each detector element*.

In comparing Weinberg with the claimed invention, Applicant finds Weinberg to disclose a single detector element (backplane 6), which material is sensitive to the deposition of energy from incident gamma rays (col. 4, lines 4-5), and submits that the disclosure of such a backplane falls wholly short of disclosing at least two detector elements disposed such that *the x-ray strikes more than one of the at least two detector elements, but only a portion (less than 100%) of each*.

In further comparing Weinberg with the claimed invention, Applicant finds Weinberg to disclose pixels on boundary planes 88 and 96 (col. 8, line 27), and submits that the disclosure of such boundary planes with pixels falls wholly short of disclosing *at*

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least two detector elements disposed such that the x-ray strikes more than of the at least two detector elements, but only a portion (less than 100%) of each.

Absent anticipatory disclosure of each and every element of the claimed invention arranged as claimed, Weinberg cannot be anticipatory.

Regarding Independent Claim 27 And Claims Dependent Therefrom

Applicant has canceled Claim 29, and has amended Claim 27 to now incorporate the limitations of Claim 29.

Dependent claims inherit all of the limitations of the parent claim.

In alleging anticipation, the Examiner alleges that Popescu discloses each and every element of the claimed invention arranged as claimed, commenting that the term “a portion of each” reads upon “0-100% of each”. Paper No. 20060626, page 3.

The Examiner further comments on page 16 of the instant office action (Paper No. 20060626): “As defined by Merriam-Webster dictionary, a portion is a part or a share of something. However, there is nothing in the definition that limits a portion to less than 100% as argued by the applicants... Accordingly, the examiner interprets a portion to be anything from 0-100%.”

Here, and as best understood by Applicant, Applicant finds the Examiner to be defining the word “portion” to also mean “whole”, and not necessarily a “part” or a “share”. Following the Examiner’s definition, a “portion” of something would include the “whole” thing.

Applicant respectfully disagrees with this overly broad reading of the phrase “a portion of each”, which is contrary to the ordinary meaning of the term and of the claim when read in light of the specification.

First, the Examiner appears to be applying extrinsic evidence to impermissibly introduce a limitation that redefines the claimed invention, when one skilled in the art would be able to ascertain the scope of the invention by looking to the intrinsic evidence of the application and prosecution history itself. At Paragraph [0025], Applicant describes a structural arrangement of opening 60 and detector elements 56 and 58, where the x-ray beam falling on both detector elements 56 and 58 is less than the total sensitive

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area of elements 56 and 58. Hence, the x-ray beam cannot fall on 100% of both detector elements 56 and 58. At Paragraph [0026], Applicant describes an arrangement where the x-ray beam has areas 62 and 64 that simultaneously fall on elements 56 and 58, respectively. Hence, the x-ray falls on all elements of the sensor device. At Figures 3-5, Applicant consistently shows beam areas 62, 64 and 84, that are only a portion (less than 100%) of the available area for each detector element. Hence, one skilled in the art would find from the intrinsic evidence itself that the phrase *"a portion of each" refers to a portion of each detector element that is less than 100% of the available area of each respective detector element.*

Second, the Examiner references Merriam-Webster dictionary to allege that "portion" means "part" or "share", and alleges that such a definition does not preclude 100% of the whole.

Applicant respectfully disagrees that Merriam-Webster dictionary supports this overly broad definition.

As further defined by Merriam-Webster dictionary, the word "portion" is further defined to mean "an often *limited part set off or abstracted from a whole*. Synonym see PART". (Merriam-Webster Online Dictionary at <http://www.m-w.com/cgi-bin/dictionary>.)

With regard to the synonym "part", Merriam-Webster dictionary defines "part" to mean "one of the often *indefinite or unequal subdivisions* into which something is or is regarded as *divided and which together constitute the whole*".

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In view of the foregoing, and applying the Examiner's own reference to the Merriam-Webster dictionary, Applicant submits that a reading of the claimed invention, whether in light of the intrinsic evidence alone or in combination with the extrinsic evidence suggested by the Examiner, would lead one skilled in the art to view the scope of the invention as referring to an arrangement where the x-ray beam *strikes more than one of the at least two detector elements, but only a portion of each, where each portion is less than 100% of the available area of each respective detector element.*

Notwithstanding the foregoing comments, Applicant has nonetheless amended the independent claims, more particularly Claim 27 in this instance, to further recite "the portion being less than 100% of a sensitive area of an associated detector element", thereby more particularly describing the claimed invention. No new matter has been added as antecedent support may be found in the application as originally filed, such as in Figures 3 and 4, for example.

In comparing Popescu with the claimed invention, Applicant finds Popescu to disclose a micro-hole collimator that allows an x-ray beam to fall upon a matrix detector, where multiple detector elements (squares of the matrix) in the interior of the profile defined by the focal spot are illuminated at 100% of their available area (Popescu, Figure 2), and to be absent an arrangement where the x-ray beam *strikes more than one of the at least two detector elements, but only a portion (less than 100%) of each.*

More particularly, in Figure 2 of Popescu, Applicant finds both the left most circular beam and the right most circular beam to strike at least one full square detector element (and possibly more than one), which is completely contradictory to the claimed invention.

Absent anticipatory disclosure of each and every element arranged as claimed, Popescu cannot be anticipatory.

In view of the amendment and foregoing remarks, Applicant submits that each Reference fails to disclose each and every element of the claimed invention arranged as claimed and therefore cannot be anticipatory. Accordingly, Applicant respectfully

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submits that the Examiner's rejections under 35 U.S.C. §102(e) have been traversed, and requests that the Examiner reconsider and withdraw of these rejections.

Rejections Under 35 U.S.C. §103(a)

Claims 20-22, stand rejected under 35 U.S.C. §103(a) as being unpatentable over Weinberg.

Claims 4, 5, 6-8, 16, 23, 24 and 32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Weinberg, as applied to claims 1, 4, 12 and 20 above, and further in view of Levin et al (U.S. Patent No. 6,114,703, hereinafter Levin).

Claims 9, 17 and 25, are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinberg and Levin et al. as applied to claims 8, 16 and 24 above, and further in view of Warren (U.S. Patent No. 6,362,481).

Claims 1-4, 10-15, 18-23, 26-29, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Popescu in view of Sasaki et al. (U.S. Patent No. 6,411,672).

Claims 5-6, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Popescu and Sasaki et al. as applied to claims 1 and 4 above, and further in view of Warren.

Claim 30 is rejected under 35 U.S.C.103(a) as being unpatentable over Popescu as applied to claim 27 above, and further in view of Warren.

Applicant traverses these rejections for the following reasons.

Applicant respectfully submits that the obviousness rejection based on the References is improper as the References fail to teach or suggest each and every element of the instant invention in such a manner as to perform as the claimed invention performs. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention are taught or suggested in the prior art. MPEP §2143.03.

Applicant notes that the Examiner has not applied the secondary References of Levin, Warren and Sasaki, for purposes relating to the teaching or suggestion of at least

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two detector elements disposed such that *the x-ray strikes more than of the at least two detector elements, but only a portion (less than 100%) of each*, and respectfully submits that these secondary References fail to cure the deficiencies of Weinberg and Popescu in this regard.

As set above, Applicant has amended Claims 1, 12 and 27 to overcome the rejections under §102(e), and submits that for at least this reason, combined with the absence of the secondary References curing the deficiencies of Weinberg and Popescu, Claims 1, 12 and 27, and claims dependent therefrom, are patentable, as the combination of References cited by the Examiner fail to teach or suggest each and every element of the claimed invention arranged so as to perform as the claimed invention performs.

Additionally, Applicant has amended Claim 20 to incorporate similar limitations to those of amended Claims 1, 12 and 27, and submits that for similar reasons, Claim 20 and claims dependent therefrom, are patentable, as the combination of References cited by the Examiner fail to teach or suggest each and every element of the claimed invention arranged so as to perform as the claimed invention performs.

In view of the foregoing, Applicant submits that the References fail to teach or suggest each and every element of the claimed invention and are therefore wholly inadequate in their teaching of the claimed invention as a whole, fail to motivate one skilled in the art to do what the patent Applicant has done, and discloses a substantially different invention from the claimed invention, and therefore cannot properly be used to establish a prima facie case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of all rejections under 35 U.S.C. §103(a), which Applicant considers to be traversed.

Regarding Examiner's Response to Arguments

The Examiner references MPEP §2114 and comments that "an apparatus must be distinguished from the prior art in terms of structure." Paper No. 20060626, page 13.

While Applicant appreciates the content of MPEP §2114, Applicant respectfully submits that where the claimed invention is directed to a "sensor device being *disposed in*

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the housing such that an area of the x-ray allowed to fall on the sensor device changes in both position and size at the sensor device in response to movement of the focal spot in a plane parallel to the plane of the sensor device”, the claimed invention is not presented merely in terms of function, but in terms of a structural arrangement having a characteristic attribute (the disposition of the sensor device in the housing resulting in a physical limitation, that is, the area of the x-ray allowed to fall on the sensor device changing in both position and size).

Applicant submits that a functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. MPEP §2173.05(g) citing *In re Barr*, 444 F.2d 588, 170 USPQ 33 (CCPA 1971), and *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976) (Emphasis added). There is nothing wrong in defining the structures... in terms of the interrelationship of the components, *or the attributes they must possess*. *In re Venezia*, 189 USPQ 149, 152 (CCPA 1976) (Emphasis added).

Accordingly, Applicant respectfully requests that all limitations of the claimed invention be considered for what they fairly convey to a person of ordinary skill in the pertinent art.

In light of the forgoing, Applicant respectfully submits that the Examiner’s rejections under 35 U.S.C. §102(e) and 35 U.S.C. §103(a) have been traversed, and respectfully requests that the Examiner reconsider and withdraw these rejections.

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The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 07-0845.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,
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